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AUTHOR Shaw, Lois B.
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ABSTRACT

A study was conducted to (1) determine trends in the percentages of women who resume paid employment on a regular basis, work only from time to time, or remain out of the labor market entirely and (2) investigate the causes for the increased work attachment of married women. Data is based on the work histories of mature women obtained from the National Longitudinal Surveys of Labor Market Experience for the ten years from 1966 to 1976. The data suggests that it is becoming increasingly uncommon for a woman to remain a full-time housewife throughout child-rearing years. Slightly over one-third of married women work continuously during this time and the percentage is gradually increasing. Less than fifteen percent of black married women were outside the labor market continuously during the most recent five-year period reported. For white women, changing family composition and changing attitudes toward women's roles were the most important factors contributing to the trend toward greater work attachment. (LRA)

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CHANGES IN THE WORK ATTACHMENT OF MARRIED WOMEN, 1966-1976

by

Lois B. Shaw
Center for Human Resource Research
College of Administrative Science
The Ohio State University
Columbus, Ohio

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Most research on women's work has focused either on labor force participation or on hours worked during a survey week. Less commonly, hours or weeks worked during a year have been studied. Only recently has the work behavior of women over longer periods been examined.[1] In order to answer questions about changes in the degree of women's work attachment, this paper describes and analyzes the work experience of married women over a five-year period beginning when they are in their mid-thirties. At this stage in their lives, most women have completed their families and no longer have preschool children. During these years, some women resume paid employment on a regular basis, others work from time to time, while still others remain out of the labor market entirely. The first part of this paper looks at trends in the percentages of women who choose each of these options. The second part examines the reasons for these trends.

Determining what changes have occurred in work attachment is important for understanding women's labor market problems. For example, it has been suggested that the increase in women's labor force participation implies an influx of inexperienced workers, which in turn explains the increasing male-female differential both in earnings and in the unemployment rate.[2] However, it is not clear whether the increase in participation is due primarily to an increase in the percentage of women who work at some time or an increase in

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[1] In their survey of alternative measures of labor supply, Cain and Watts (1973) cited only two cases in which labor supply was studied over a period longer than one year. Recently there has been increased interest in the long-term work experience of women; see, for example, Sandell (1977), Maret-Haven (1977), Mincer and Ofek (1979) and Heckman and Willis (1979).

[2] This explanation was suggested in the Economic Report of the President, 1973.

the percentage of time spent in the labor force by women who do work. In the latter case, an increase in the labor force participation rate would not imply a decrease in the average level of recent work experience in the female labor force.[3]

The second part of this paper investigates the causes for the increased work attachment of married women. Are women working more because of economic pressures, because of decreasing family responsibilities, or because their increasing educational attainments allow them to obtain better jobs? To what extent have changing opinions about women's roles contributed to changes in work behavior? Answers to these questions are important for prediction of future trends in women's work attachment.

Changes in Work Attachment, 1966-1976

This study is based on the work histories of mature women obtained from the National Longitudinal Surveys of Labor Market Experience (NLS) for the ten years from 1966 to 1976.[4] In order to look at trends in work behavior, these years are divided into two five-year periods, and the work experience of women who were 34 to 38 years of age in 1966 is compared with that of women who were 34 to 38 in 1971. The measure of work attachment used is the

[3]For example, if in one year 60 percent of all women worked and on average worked 70 percent of the year, the participation rate in the average week would be 42 percent. An increase in the weekly participation rate would occur if more women worked at some time during the next year, but could also occur if 60 percent worked, but worked 80 percent of the year.

[4]Over 5,000 women representing a national probability sample have been interviewed at intervals beginning in 1967. A complete description of the surveys, which include three other cohorts of men and women, may be found in Center for Human Resource Research (1979).

percentage of weeks worked during the five-year period.[5] Since a major focus is on continuity of employment, percentage of weeks worked is used instead of percentage of hours worked, which does not distinguish continuous part-time employment from sporadic full-time employment.[6]

Table 1 shows the percentage of married women with varying degrees of work attachment in the two five-year periods, 1966-1971 and 1971-1976.[7] These figures include only women who were married throughout the given period. The percentage of married women who did not work outside the home at any time during a five-year period was, of course, much smaller than the roughly 45 to 50 percent of women in this age range who were out of the labor force at a single point in time in recent years. Only 30 percent of

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[5] In comparing the amount of employment of married women in the two five-year periods covered by the NLS, one limitation of the data should be noted. During the first five-year period, questions on past employment covered each year of the period. During the second five years, three interviews were conducted: in 1972, 1974 and 1976. In each case, questions on weeks worked covered only the year prior to the interview, leaving two one-year gaps in the respondent's work history. For the 1971-1976 period, the percentage of weeks worked in the three reported years will be assumed to be the same as the percentage for the entire five years. Because of this data limitation, the percentage of women with a strong work attachment in the second period is probably underestimated slightly while the percentage of women who remained out of the labor market entirely is slightly overestimated. Comparing three years of data with the full five years in the 1966-1971 period suggests differences of about one percentage point caused by the differing number of observed weeks.

[6] In both periods, women with a strong attachment as measured by weeks worked were also more likely to work full time. About 70 to 75 percent of these women averaged over 35 hours in all survey week jobs in the five-year period. In contrast, less than half of the women who worked less than one-fourth of the weeks were full-time workers when they did work.

[7] Weeks worked in 1966 were for the calendar year. Work histories for 1967-1972 covered the periods between interviews, which were held in the late spring of 1967, 1968, 1969, 1971, and 1972. The 1966-1971 period ends on the date of the 1971 interview. The 1971-1976 period begins on that same date in each individual case.

Table 1 Percentage of Weeks Worked in Two Five-Year Periods: Married Women Age 34-38 at the Beginning of Each Period

(Percentage distribution)

Percentage of weeks worked	1966-1971	1971-1976
	TOTAL POPULATION[a]	
Total	100.0	100.0
0	29.9	24.6
1-24	11.2	11.7
25-74	27.8	27.6
75-100	31.1	36.0
Sample size	939	758
	WHITES	
Total	100.0	100.0
0	30.9	25.9
1-24	10.7	12.2
25-74	27.7	27.6
75-100	30.7	34.3
Sample size	735	629
	BLACKS	
Total	100.0	100.0
0	16.7	14.7
1-24	16.2	11.6
25-74	25.9	20.2
75-100	41.2	53.5
Sample size	204	129

[a]Weighted to take into account oversampling of the black population.

the women in the sample were not employed at any time during the 1966-1971 period. By 1971-1976, only 25 percent did not work at all. The "traditional" housewife who never works outside the home is now a decided minority of all married women in this age range.

In both periods women who worked less than three-fourths of all weeks weeks were a significant fraction of the total. Not all of these women can be considered sporadic workers. Among white women in the first-period sample whose subsequent work experience can be followed, about 7 out of the 38 percent who worked less than three-fourths of the weeks were labor force reentrants who were beginning a period of continuous employment during the five-year period. Another 3 percent were leaving the labor force for an extended period, in some cases perhaps permanently. Thus, less than 30 percent worked intermittently. The corresponding percentage for black women was somewhat higher higher--about 37 percent. Within the groups of intermittent workers there was a great variety of work patterns, ranging from women who worked only once for a few weeks to those who occasionally spent a year or two outside the labor force and those who worked every year for part of the year.

Strong work attachment became more common between the two periods. Approximately 30 percent of white women worked at least three-fourths of the weeks in the first period, and this strongly attached group increased to about 34 percent of the total in 1971-1976. For black women, the increase was much larger: from about 40 to over 50 percent.

What do these changes indicate about the average amount of work experience of women workers in recent years? Is work experience declining with an influx of new entrants into the labor force? The patterns of work attachment that we observe suggest that, so far as recent work experience is

concerned, there has been no decline. Among white women, increases occurred both in the strongly attached group and in the groups who worked for a smaller part of the time. In other words, more white women were working in the second period at all levels of attachment. Among black women, the pattern was different. They showed a large increase in the percentage who worked three-fourths or more of the period, along with a decrease in the percentage who were less strongly attached. Considering only those women who worked at some time, no matter how short, the mean percentage of weeks worked increased between the two periods, from 62 to 64 percent for white women and from 63 to 70 percent for black women. At least for women in their late thirties and early forties, the level of recent work experience has increased along with increasing labor force participation.[8]

Regression Analysis of Factors Affecting Work Attachment

In this section, regression analysis is used to determine what factors have important effects on women's work attachment over a five-year period. Two measures of work attachment are used as dependent variables: first, whether the respondent worked at some time during the five-year period and second, whether she had a strong attachment, defined as working at least three-fourths of the weeks in the period.

The independent variables used in the analysis are number and ages of children, the family's income without the wife's earnings, the woman's education and health, whether the family moved during the period, the

[8]For women who were in the labor force during the survey week at the end of each period, there was similarly no evidence of a decline in recent work experience; on average they had worked slightly less than three-fourths of the weeks in the preceding five years in both 1971 and 1976.

average unemployment rate in the places where the family lived, an index of the demand for female labor in these places, and whether the husband was a farmer.[9] All of these factors have been found to affect the employment of women at single points in time and should, therefore, affect long-term work attachment as well.[10] The importance of a woman's attitude toward the propriety of work has also been found to affect her subsequent labor force behavior.[11] Since the period being considered was one of rapid societal change in these attitudes, this factor will be considered separately.

Data from the two five-year periods are combined into a single sample. In doing this, it is assumed that there have been no behavioral changes between the two time periods. A dummy variable indicating that an observation is from the second five-year period is then added to capture any time trend not accounted for by the other independent variables in the regression equation. Later, the assumption that there have been no behavioral changes will be tested by interacting the time-period variable with each of the other independent variables.

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[9] A complete description of all variables may be found in the Appendix.

[10] Family income, children, and the wage rate have been used as independent variables in most labor supply research, beginning with Cain (1966) and Bowen and Finegan (1969). Rather than predict the wage of nonworkers, the present paper uses education in place of a wage rate. The effects of the unemployment rate and the demand for female labor were also examined by Bowen and Finegan, whose index is used in this study. Sandell (1976) has studied the effect of moving on women's labor force participation.

[11] The effect of sex role attitudes on work behavior has been studied by Macke, et al. (1978) and Sandell (1977). Waite (1979) used sex role attitude changes to improve predictions of future labor force participation.

Tables 2 and 3 show the regression equations for white and black women, respectively for the probability of working at all and for having a strong attachment. In each case Equation 1 shows all independent variables except the role-attitude variable, while in Equation 2, role attitude is added. As expected, the number and ages of the children a woman has, her education, her health, and the family's income without the wife's earnings all affect both measures of work attachment over a five-year period.

Many of these factors have a greater influence on strong attachment than on whether a woman works at all. For example, children, poor health, and (especially for white women) moving, may all cause gaps in employment even though they do not preclude working entirely. Women with a college education are somewhat more likely to work than other women, but they are much more likely to become strongly attached to the labor force.

In past research, a number of differences in the factors influencing the labor force participation of black and white women have been found.[12] The most important of these are the smaller deterrent effect of both family income and the presence of children on black women's propensity to work. Considered over a five-year period, however, this picture must be modified. The effect of family income on the chances of working at all is indeed weaker for black women than for white, but income appears to have similar deterrent effects on the chances of strong attachment for both groups. The presence of young children also decreases the chances of working to a similar degree for the two groups. However, while white women are less likely to work as the total number of dependents in the family increases,

[12] Bell (1974) provides an interesting study of differences in the factors affecting the labor force participation of black and white women.

Table 2

Attachment to the Labor Force Over Time:
Regression Results for White Women Ages 34-38 at the Beginning of Each Period

(t values in parentheses)

Dependent Variables[a]:	Working at All		Strong Attachment	
Independent Variables[a]:	(1)	(2)	(1)	(2)
Number of Dependents	-.022***	-.021***	-.015**	-.015**
	(-2.42)	(-2.38)	(-1.69)	(-1.65)
Youngest Child 0-5 years	-.233***	-.226***	-.386***	-.379***
	(-4.66)	(-4.55)	(-7.57)	(-7.50)
Youngest Child 6-10 years	-.157***	-.156***	-.347***	-.345***
	(-3.58)	(-3.59)	(-7.77)	(-7.81)
Youngest Child 11-17 years	-.047	-.044	-.194***	-.190***
	(-1.25)	(-1.17)	(-5.07)	(-5.03)
Any Child 18-23 years	.100***	.097***	.070***	.067***
	(3.57)	(3.50)	(2.47)	(2.39)
Finished College	.135***	.108***	.200***	.174***
	(3.30)	(2.66)	(4.80)	(4.20)
Attended College	.063*	.054*	.027	.019
	(1.59)	(1.38)	(.68)	(.48)
Didn't Finish High School	-.071***	-.067***	-.077***	-.074***
	(-2.48)	(-2.38)	(-2.66)	(-2.56)
Health	-.100***	-.091***	-.135***	-.126***
	(-3.02)	(-2.77)	(-4.01)	(-3.77)
Family Income[b]	-.017***	-.016***	-.014***	-.013***
	(-8.27)	(-7.88)	(-6.36)	(-5.97)
Unemployment Rate	-.013**	-.014**	-.018**	-.019***
	(-1.66)	(-1.77)	(-2.29)	(-2.39)
Demand for Labor	-.000	-.001	.001	.001
	(-.13)	(-.32)	(.39)	(.22)
Farm Dweller	-.060	-.049	.034	.045
	(-.95)	(-.78)	(.52)	(.70)
Moved	-.039	-.037	-.086**	-.084**
	(-.94)	(-.91)	(-2.04)	(-2.02)

Table 2 (continued)

Dependent Variables[a]:	Working at All		Strong Attachment	
Independent Variables[a]:	(1)	(2)	(1)	(2)
Role Attitude		.028*** (5.65)		.027*** (5.31)
Second Period	.062** (2.24)	.044* (1.58)	.052** (1.84)	.034 (1.21)
Constant	1.093*** (9.96)	.817*** (6.86)	.789*** (7.06)	.524*** (4.32)
$\bar{R}^2$	.107	.128	.138	.155
F-ratio	11.94	13.45	15.50	16.59
Standard Error	.43	.42	.43	.43
Sample Size	1,364			
Dependent Variable Means:	.714		.324	

[a]Complete variable descriptions may be found in the Appendix.
[b]Total family income less the wife's earnings, in thousands of (1971 constant) dollars, averaged over the five-year period.
*Significant at the 10 percent level, one-tailed test
**Significant at the 5 percent level, one-tailed test
*** Significant at the 1 percent level, one-tailed test

Table 3

Attachment to the Labor Force Over Time:
Regression Results for Black Women Ages 34-38 at the Beginning of Each Period

(t values in parentheses)

Dependent Variables[a]:	Working at All		Strong Attachment	
Independent Variables[a]:	(1)	(2)	(1)	(2)
Number of Dependents	.027***	.028***	.008	.009
	(2.35)	(2.51)	(.59)	(.67)
Youngest Child 0-5 years	-.183***	-.194***	-.440***	-.449***
	(-2.34)	(-2.51)	(-4.53)	(-4.64)
Youngest Child 6-10 years	-.232***	-.234***	-.360***	-.362***
	(-3.40)	(-3.50)	(-4.26)	(-4.30)
Youngest Child 11-17 years	-.042	-.052	-.077	-.086
	(-.65)	(-.82)	(-.96)	(-1.07)
Any Child 18-23 years	-.014	-.020	.057	.052
	(-.29)	(-.42)	(.94)	(.86)
Finished College	.234***	.227***	.474***	.468***
	(2.75)	(2.71)	(4.48)	(4.46)
Attended College	.095	.082	.240**	.230*
	(.83)	(.73)	(1.69)	(1.63)
Didn't Finish High School	-.015	-.035	-.019	-.035
	(-.33)	(-.77)	(-.34)	(-.62)
Health	-.061	-.053	-.265***	-.259***
	(-1.13)	(-1.00)	(-3.96)	(-3.89)
Family Income[b]	-.006	-.006	-.014*	-.014*
	(-.90)	(-.89)	(-1.62)	(-1.62)
Unemployment Rate	-.001	-.006	-.008	-.012
	(-.11)	(-.45)	(-.53)	(-.75)
Demand for Labor	.007*	.007	.010*	.010*
	(1.32)	(1.21)	(1.49)	(1.42)
Farm Dweller	.177**	.150*	-.246**	-.267**
	(1.72)	(1.48)	(-1.92)	(-2.10)
Moved	.185**	.199**	.122	.133
	(1.74)	(1.90)	(.92)	(1.01)

Table 3 (continued)

Dependent Variables[a]:	Working at All		Strong Attachment	
Independent Variables[a]:	(1)	(2)	(1)	(2)
Role Attitude		.029*** (3.32)		.023** (2.12)
Second Period	.022 (.48)	.017 (.38)	.090* (1.61)	.086* (1.55)
Constant	.661*** (2.91)	.408** (1.73)	.417* (1.47)	.214 (.72)
$\bar{R}^2$	.057	.086	.216	.224
F-ratio	2.34	2.96	7.09	7.00
Standard Error	.36	.35	.44	.44
Sample Size	333			
Dependent Variable Means:	.841		.459	

[a]Complete variable descriptions may be found in the Appendix.
[b]Total family income less the wife's earnings, in thousands of (1971 constant) dollar, averaged over the five-year period.
*Significant at the 10 percent, one-tailed test
**Significant at the 5 percent, one-tailed test
***Significant at the 1 percent, one-tailed test

the opposite is true for black women. In addition, white women whose youngest child is beyond the primary grades are deterred from strong attachment more than are black women. However, having college-age children increases the work attachment of white women but not that of black women, a fact which may reflect the higher rate of college attendance among white youth.

Other differences between black and white women are also apparent. A high unemployment rate significantly decreases white but not black women's work attachment, while living where the industrial structure is favorable for female employment is important for black but not white women. College graduation increases the likelihood of strong work attachment by much more for black women than for their white counterparts. Poor health discourages strong attachment for black women more than for white, either because the health conditions reported are more severe or because the type of work black women commonly do is more likely to be curtailed by health problems.[13] While moving causes a decreased chance of strong work attachment for white women, its effect on black women is the opposite. This may reflect the greater importance of the black wife's income to her family, so that moving is undertaken only when both spouses' employment will benefit. White families seem to consider the husband's job opportunities as primary in a move.[14]

That attitudes toward women's roles significantly affect work attachment is shown in Equation 2 (Tables 2 and 3). For both races, the addition

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[13]The latter explanation receives support in Mott (1978b). However, household heads were the group being studied.

[14]See Sandell (1976).

of this attitudinal measure considerably improves the explanatory power of the regression equations. For white women, when the role-attitude measure is added, the significance of the time-period variable is reduced. Part of what appears in Equation 1 as a significant unexplained trend toward greater work attachment is attributed in Equation 2 to the effect of attitudes toward women working. Therefore, it appears that taking role attitudes into account can improve the prediction of future trends in women's work behavior, particularly in periods when these attitudes are changing rapidly.

Have there been any changes in the importance of the factors that affect women's work attachment? Fields (1976) found evidence of a gradually declining effect of husband's income on labor force participation over the 1940-1970 period and a small decline in the effect of children in 1970. To see whether there were any changes between the periods in the present study, the independent variables were interacted with the time-period variable. For the most part, these interactions were not significant.[15] The one possible exception involves the same variables mentioned by Fields. In the regression for the probability of strong attachment for white women, the effect of family income became significantly less negative between the two periods, as shown in Table 4.[16] There is also some suggestion that the

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[15] An exception was the interaction term for living on a farm. This was significantly negative for white and significantly positive for black women in the strong attachment regression. Since the number of farmers was small--3 to 4 percent of the total--these results, for which there is no obvious explanation, should be viewed with caution.

[16] Fields divided family income without the wife's earnings into two variables: husband's earnings and other income; she found a large decline in the significance of husband's earnings over the 1940-1970 period. Husband's earnings are by far the largest component of the family income variable used here.

Table 4

Strong Attachment to the Labor Force Over Time:
Selected Regression Results for White Women Ages 34-38 at the Beginning of Each Period[a]

Dependent Variable[b]:	Strong Attachment		
Independent Variables[b]:	First-Period Coefficients	Implied Second-Period Coefficients	Change Between Periods
Family Income[c]	-.016*** (-4.99)	-.010*** (-3.40)	.006* (1.35)
Number of Dependents	-.007 (-.56)	-.026** (-1.77)	-.019 (-1.03)
Youngest Child 0-5 years	-.429*** (-6.54)	-.315*** (-3.89)	.114 (1.10)
Youngest Child 6-10 years	-.383*** (-6.42)	-.311*** (-4.66)	.072 (.80)
Youngest Child 11-17 years	-.208*** (-4.00)	-.174*** (-3.11)	.034 (.45)
Any Child 18-23 years	.073** (1.93)	.054 (1.24)	-.019 (-.33)

[a]Complete regression results are presented in the Appendix, Table 1A.
[b]Complete variable descriptions may be found in the Appendix.
[c]Total family income less wife's earnings in thousands of (1971 constant) dollars, averaged over the five-year period.
*Significant at the 10 percent level, one-tailed test
**Significant at the 5 percent level, one-tailed test
***Significant at the 1 percent level, one-tailed test

presence of young children discouraged strong attachment to a lesser extent than before. This latter change does not quite reach statistical significance for any age group, but is present at all ages below 18. Although none of these changes over a five-year period is large enough to be observed with a high degree of confidence, these results suggest the importance of looking for further changes in the future.

Changing Social and Economic Conditions and Their Effects on Work Attachment

In the last section, various factors were examined to see what effects they had on work attachment. This section describes changes that have occurred in these factors between the two five-year periods and assesses the relative importance of these changes in explaining the observed increases in women's work attachnent during these years.

Substantial changes in family structure are apparent in Table 5. Comparing the second five years with the first, it can be seen that fewer white women had preschool children or children who had recently entered school. However, the average number of their dependents actually increased. Like their white counterparts, fewer black women had preschool children in the second period, but unlike white women they also had fewer dependents, on average, in the second five years than they did in the first. For both black and white women, changes in family structure between the two periods were favorable for increasing work attachment.

Between the two periods, levels of educational attainment rose substantially. Fewer women were high school dropouts; for black women the decrease in the percentage of dropouts was striking--from 65 to 45 percent (Table 6). Slightly more women were college graduates in the second period than in the

Table 5 Family Structure: Comparison of Two Five-Year Periods[a]

Family structure	1966-1971	1971-1976
	WHITES	
Percentage distribution of families by age of youngest child[b]		
Total	100.0	100.0
0-5 years	18.4	11.3
6-10 years	30.2	25.6
11-17 years	36.6	47.7
No children or 18 or older	14.8	15.4
Percent with any child age 18-23[b]	53.9	61.5
Mean number of dependents[c]	2.9	3.0
Sample Size	735	629
	BLACKS	
Percentage distribution of families by age of youngest child[b]		
Total	100.0	100.0
0-5 years	27.0	13.2
6-10 years	29.4	34.1
11-17 years	24.5	36.4
No children or 18 or older	19.1	16.3
Percent with any child age 18-23[b]	62.3	65.1
Mean number of dependents[c]	3.9	3.7
Sample size	204	129

[a]Families of married women who were 34-38 at the beginning and 39-43 at the end of each period.

[b]At the end of each period.

[c]At the first interview in each period (not available at other dates).

Table 6 Education, Health, Income and Unemployment in Two Five-Year Periods[a]

Characteristics	1966-1971	1971-1976
	WHITES	
Education (percentage distribution)		
Total	100.0	100.0
Didn't finish high school	29.0	22.4
High school graduate	51.0	55.0
Attended college	10.3	11.6
Finished college	9.7	11.0
Health (percentage distribution)		
Total	100.0	100.0
Impaired	16.5	13.0
Not impaired	83.5	87.0
Family income[b] (mean)	$10,930	$12,310
Unemployment rate[c] (mean)	4.7%	6.6%
Sample size	735	629
	BLACKS	
Education (percentage distribution)		
Total	100.0	100.0
Didn't finish high school	65.2	44.2
High school graduate	25.0	44.9
Attended college	2.9	3.9
Finished college	6.9	7.0
Health (percentage distribution)		
Total	100.0	100.0
Impaired	18.1	14.0
Not impaired	81.9	86.0
Family income[b] (mean)	$6,270	$7,070
Unemployment rate[c] (mean)	5.4%	6.7%
Sample size	204	129

[a]For married women who were 34-38 at the beginning of each period. Complete variable descriptions are in the Appendix.

[b]Without wife's earnings, in 1971 dollars.

[c]In area of residence.

first.[17] Health improved, as shown by the smaller percentage of women reporting health problems. These changes can be expected to contribute to an increase in the percentage of women working. On the other hand, the rising levels of family income and higher unemployment rates are a negative influence on work attachment, especially for white women.

The 1966-1976 period was also one of rapidly changing attitudes toward women's roles in society as the new feminist movement became organized and active in the years from about 1966 to 1970.[18] The increasing social acceptance of working mothers is reflected in the views of the women in this sample, shown in Table 7. Based on three questions about the propriety of a mother with school-aged children working under certain circumstances, the attitude scores reflect a decided shift away from traditional attitudes toward a middle ground (it is all right for a woman to work if her husband agrees) and even a completely nontraditional attitude in which the husband need not approve.

Table 8 shows how these factors contributed to changes in work attachment. Figures shown are percentage point changes in the probability of working or having a strong attachment, predicted from the observed changes

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[17] A limitation of the education data is that it is available only for 1967. It is probable that some women in the second period sample had returned to college between 1967 and the beginning of 1971 and that the increase in college attendance between the two periods is understated.

[18] Extensive news media coverage of the women's liberation movement began about 1970. See Freeman (1975) for a history of the movement in the late 1960s. While it can be viewed as an outcome of previous attitudinal changes, the women's movement probably led to further change by providing social support for women who were dissatisfied with traditional roles.

Table 7 Comparison of Role Attitudes in Two Five-Year Periods[a]

Role attitude[b]	1966-1971	1971-1976
	WHITES	
(Percentage distribution)		
Total	100.0	100.0
Traditional	35.2	23.2
Moderate	53.0	58.4
Nontraditional	11.8	18.4
(Mean)	10.0	10.7
Sample size	735	629
	BLACKS	
(Percentage distribution)		
Total	100.0	100.0
Traditional	21.1	20.9
Moderate	54.9	52.7
Nontraditional	24.0	26.4
(Mean)	11.0	11.2
Sample size	204	129

[a]For married women who were 34-38 at the beginning of each period.

[b]At the first interview in each period. From a scale with values 3-15: traditional = 3-9, moderate = 10-12, nontraditional = 13-15.

Table 8

Percentage Changes in the Probability of Working and of Strong Attachment, Predicted from Changes in Independent Variables between First and Second Periods[a]

(Percentage Changes)

Independent Variables	WHITES		BLACKS	
	Working	Strong Attachment	Working	Strong Attachment
With Positive Effects				
Children	2.4	2.5	0.4	3.4
Education	0.7	0.7	0.8	1.0
Health	0.3	0.4	0.2	1.1
Role Attitudes	2.0	1.9	0.6	0.5
Trend	4.4	3.4	1.7	8.6
Other[b]	0.2	-	-	0.5
Total	10.0	8.9	3.7	15.1
With Negative Effects				
Income	-2.1	-1.8	-0.5	-1.1
Unemployment Rate	-2.7	-3.6	-0.8	-1.6
Other[b]	-	-0.1	-0.5	-
Total	-4.8	-5.5	-1.8	-2.7
Grand Total Change[c]	5.2	3.4	1.9	12.4

[a] Percentage changes are calculated by multiplying regression coefficients in Equation (2) by changes in the independent variables shown in Tables 5-7.

[b] Includes changes in demand for female labor, farm dweller, and moved; see Footnote 20.

[c] Grand total is the total increase in the percentage of women with each degree of work attachment between the first period and the second. Totals differ from those implied in Table 1, due to rounding.

in the means of the independent variables.[19] The effects of the variables representing number and ages of children have been combined, as have the effects of changes in the percentage of women with different levels of education.[20] The total increase in the percentage of women with each degree of work attachment between the two periods is labelled "grand total change."

For white women, it can be seen that a major influence leading to stronger work attachment was the change in family composition, especially the smaller percentage of women with young children. It should be noted that this change occurred before birth rates began to decline: indeed women in the second period had more dependents than those in the first period.[21] A second important influence was the change in role attitudes between the two periods. This factor was nearly as important as the change in family composition. Increasing levels of education played a smaller role. However, about 40 percent of the upward trend was unexplained by other factors and attributed to a time-trend variable. Both rising income and a higher rate of unemployment partially offset the changes leading to increased work attachment. Worsening economic conditions in the second

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[19] For example, for white women the change in the mean role attitude scale from 10.0 to 10.7 between the two periods would be predicted to cause an increase of 2.0 percentage points in the proportion of women who worked at all (.028 X .7).

[20] Demand for female labor, moved, and farm dweller are combined in the "other" category. The means of these variables changed between the two periods as follows: for whites from 32.1 to 31.0 for demand for labor, from .091 to .084 for moved, from .044 to .027 for farm dweller. The corresponding figures for blacks are: 32.2 to 32.0, .039 to .031, and .049 to .031.

[21] Women in the second period had their children at younger ages than those in the first period, although total completed family size was about 3.2 for each group (U.S. Bureau of the Census, 1974, Table A and 1977, Table 18).

period played an especially important role in reducing the trend toward strong attachment.

The factors that influenced black women's increasing work attachment were somewhat different. For strong attachment, changes in family composition were highly significant. However, increasing levels of education and better health also contributed to the upward trend, while role attitudes were less significant since they changed much less for black women than for white. Neither increasing family income nor rising unemployment rates had as large a restraining effect on work attachment for black women as for white. This, too, contributed to the greater increase in strong attachment among black women than among their white counterparts. The change in the percentage of black women who worked at any time was small, and no single factor contributed substantially to the change that did occur.

Summary and Discussion

This paper has examined trends in the work attachment of married women by comparing the proportion of weeks worked in two successive five-year periods from 1966 to 1976. The data suggest that it is becoming increasingly uncommon for a woman to remain a full-time housewife throughout the child-rearing years. Once their children are beyond the primary school years, most women return to work. However, many work somewhat irregularly, perhaps in response to temporary financial pressures or to unusually good job opportunities. Slightly over one-third of married women work continuously at this time, although the percentage is gradually increasing.

With a long history of greater work involvement than their white counterparts, less than 15 percent of black married women were outside the

labor market continuously during a recent five-year period. Although this percentage has not been changing rapidly, there was a marked increase in the percentage of black women with a strong work attachment--from 40 to 50 percent. For neither black women nor white in this age group is the average level of recent work experience declining because of an influx of new labor market entrants.

For white women, changing family composition and changing attitudes toward women's roles were the most important factors contributing to the trend toward greater work attachment. Had it not been for the negative influence of rising unemployment and higher family incomes, the increase would probably have been even greater than it was. The increasing work attachment of black women can be attributed to changes in family composition, higher educational attainment and improved health. Since black women held favorable attitudes toward working in the earlier period as well as in the later, changes in role attitudes did not have as great an impact on work attachment for black women as for white.

To what extent can we expect the trends reported here to continue? Women who enter their late thirties in the next ten years will have progressively smaller families than the women in this study. Declining family size will favor increased work attachment, although a slight increase in the average age when childbearing is begun could partially offset the effect of smaller families.[22] Although average family income will probably

[22]While women who were 40 to 44 in 1976 (the approximate age of the second period sample in that year) had 3.2 children, those who were 35 to 39 had 2.9, those who were 30 to 34 expected 2.4 and those who were 25 to 29 expected 2.1 (U.S. Bureau of the Census, 1977, Tables 1 and 18). Although births may occur at slightly older ages in future years as the age

continue to increase, rapid inflation and a declining rate of growth in productivity could lead to a lower rate of increase in real income than in the past. Furthermore, it is possible that in the future high family income will be less of a deterrent to working outside the home. Levels of education will also increase in this age group and attitudes toward women working can be expected to become more favorable.[23] Both of these changes favor continuing increases in work attachment. A serious depression might interrupt the upward trend. All other factors point to continuing increases in the work attachment of married women as they enter their middle years.

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of marriage increases, this slight change should not be great enough to raise significantly the average age at which women complete their families--given that the number of third and higher order births declines as rapidly as expected. Probably on balance fewer women in their late thirties will have young children in the future.

[23] Younger women, in general, have more favorable attitudes toward women working. See Mott (1978a, p. 52). Therefore, even if attitudes of individual women do not change, as successive cohorts reach a given age, they can be expected to have more favorable attitudes than previous cohorts.

APPENDIX

VARIABLE DEFINITIONS AND MEANS

Dependent Variable Definitions	Pooled Means White	Black
Working at All: A dummy variable which assumes a value of one if the respondent's weeks worked over a five-year period exceed zero, and which receives a value of zero if the total weeks worked equal zero.	.71	.84
Strong Attachment: A dummy variable which receives a value of one if the respondent's weeks worked are three-fourths or more of the total weeks available in a five-year period, and which receives a value of zero if the proportion of the period worked is less than three-fourths.	.32	.46
Independent Variable Definitions		
Number of Dependents: The number of dependents, excluding the respondent's husband, reported as of the first survey date of the five-year period (1967 or 1972).	2.96	3.86
Youngest Child 0-5 Years: A dummy variable assuming the value one if the age of the respondent's youngest child is between zero and five years as of 1971 or 1976, and assuming the value zero otherwise.	.15	.22
Youngest Child 6-10 Years: A dummy variable which assumes a value of one if the respondent's youngest child is between six and ten years of age as of 1971 or 1976, and which assumes a value of zero otherwise.	.28	.31

Independent Variable Definitions (continued)	Pooled Means White	Black
Youngest Child 11-17 Years: A dummy variable which assumes a value of one if the respondent's youngest child is between the ages of eleven and seventeen as of 1971 or 1976, and which assumes a value of zero otherwise.	.42	.29
Any Child 18-23: A dummy variable which receives a value of one if the respondent has any children between the ages of eighteen and twenty-three as of 1971 or 1976; the variable receives zero otherwise.	.57	.63
Finished College: A dummy variable which receives a value of one if the respondent completed 16 or more years of school by 1967, and which receives zero otherwise.	.10	.07
Attended College: A dummy variable which assumes a value of one if the respondent completed 13-15 years of school by 1967, and which assumes zero otherwise.	.11	.03
High School Graduate: Omitted education category in the regression analysis.	.43	.33
Didn't Finish High School: A dummy variable which assumes a value of one if the respondent completed 11 or less years of school as of 1967, and which is zero otherwise.	.26	.57
Health: A dummy variable which takes a value of one if the respondent maintains that her physical condition "prevents" or "impairs" the amount or kind of market work		

Independent Variable Definitions (continued)	Pooled Means White	Black
or housework that she can do, in 1967 or 1972; the variable takes a value of zero otherwise.	.15	.17
Family Income: The average annual total family income (over a five-year period) from all sources except the wife's earnings, expressed in 1971 dollars.	$11,570	$6,580
Unemployment Rate: The average unemployment rate (over a five-year period) for the labor markets of the respondent's residences. For the first five years, the rates are the unemployment rates from the Current Population Surveys of 1967, 1969, and 1971. For the second period, the CPS 1972, 1974, and 1976 rates are used.	5.58%	5.93%
Demand for Labor: The Index of Demand for Female Labor for the respondent's 1967 or 1972 residence, based upon an industrial-mix variable created by Bowen and Finnegan (1969), from 1960 Census data, which may be "viewed as a prediction of what the sex-employment ratio in that area would have been if that ratio had depended only on the national sex-employment ratios for each industry group and the area's industry mix" (Bowen and Finnegan, 1969, p. 772).	31.62	32.11
Farm Dweller: A dummy variable which assumes a value of one if the resondent's husband's occupation is		

Independent Variable Definitions (continued)	Pooled Means White	Black
classified as farmer, farm manager, or farm laborer in 1967 or 1972, and which is zero otherwise.	.04	.04
Moved: A dummy variable assuming the value one when the respondent's SMSA or county of residence has changed between 1967 and 1971, or when the county of residence has changed between 1971 and 1976, and assuming a value of zero when the residence has not changed.	.09	.04
Role Attitude: The respondent's total score from the sum of points scored (5 points for "Definitely all right" down to one point for "Definitely not all right") on three statements concerning the full-time employment of married women with children 6-12 years old. The higher the points given, the more nontraditional the woman is considered.	10.30	11.06
Second Period: A dummy variable that takes the value of one if an observation occurred in the second period, zero if in the first period.	.46	.39

Table 1A

Strong Attachment to the Labor Force Over Time:
Regression Results for White Women Ages 34-38 at the Beginning of Each Period

(t values in parentheses)

Dependent Variable[a]:	Strong Attachment	
Independent Variables[a]:	First-Period Coefficients	Interaction Terms for Change Between Periods
Number of Dependents	-.007 (-.56)	-.019 (-1.03)
Youngest Child 0-5 Years	-.429*** (-6.54)	.114 (1.10)
Youngest Child 6-10 Years	-.383*** (-6.42)	.072 (.80)
Youngest Child 11-17 Years	-.208*** (-4.00)	.034 (.45)
Any Child 18-23 Years	.073** (1.93)	-.019 (-.33)
Finished College	.168*** (2.94)	.002 (.02)
Attended College	.002 (.03)	.038 (.47)
Didn't Finish High School	-.092*** (-2.40)	.038 (.66)
Health	-.144*** (-3.24)	.027 (.40)
Family Income[b]	-.016*** (-4.99)	.006* (1.35)
Unemployment Rate	-.018** (-2.32)	--[c]
Demand for Labor	.001 (.35)	--[c]
Farm Dweller	.141** (1.77)	-.281** (-2.11)

Table 1A (continued)

Dependent Variable[a]:	Strong Attachment	
Independent Variables[a]:	First-Period Coefficients	Interaction Terms for Change Between Periods
Moved	-.048 (-.87)	-.091 (-1.08)
Role Attitude	.027*** (5.28)	--[c]
Second Period	-.017 (-.19)	
Constant	.546*** (4.21)	
$\bar{R}^2$	.154	
F-ratio	9.86	
Standard Error	.43	
Sample size	1,364	
Dependent Variable Mean	.324	

[a]Complete variable descriptions may be found in the Appendix.
[b]Total family income less wife's earnings in thousands of (1971 constant) dollars, averaged over the five-year period.
[c]Interaction term is not used due to high correlation (over 90 percent) with Second-Period dummy variable.
*Significant at 10 percent level, one-tailed test
**Significant at 5 percent level, one-tailed test
***Significant at 1 percent level, one-tailed test

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The Center for Human Resource Research

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